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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,509	02/12/2001	Eugene Lukanidin	12754A	6832

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05/19/2003

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EXAMINER

ANDRES, JANET L

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 05/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,509

Applicant(s)

LUKANIDIN ET AL.

Examiner

Janet L. Andres

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 24 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 4-8, 10-13 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 8, 10-13, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 7, 28, 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

1. Applicant's amendment filed 24 February 2003 is acknowledged. Claims 4-8, 10-13, and 26-29 are pending and under examination in this application. The text of those sections of Title 35, U.S. Code, not included in this action can be found in a prior office action.

Claim Rejections Withdrawn

2. The rejection of claims 4-8 and 10-13 under 35 U.S.C. 112, first paragraph, as lacking written description of all Mts-1 proteins is withdrawn in response to Applicant's arguments.

3. The rejection of claims 4-8 and 10-13 under 35 U.S.C. 112, first paragraph, as lacking enablement for all Mts-1 proteins is withdrawn in response to Applicant's arguments.

4. The rejection of claims 4-8 and 10-13 under 35 U.S.C. 112, second paragraph, is withdrawn in response to Applicant's arguments.

Claim Rejections Maintained

5. The rejection of claims 4-6, 8, 10 and 11 under 35 U.S.C. 102(b) as anticipated by U.S. patent 5801142 is maintained for reasons of record in the office action of paper no. 7 and applied to new claims 26 and 27.

Applicant argues that there is no teaching or suggestion in the '142 patent to isolate multimers, as opposed to monomers and dimers.

Applicant's arguments have been fully considered but have not been found to be persuasive. The '142 patent teaches in column 38, lines 50-52 and in figure 15 that the mouse protein migrates on a gel with a molecular weight of 10-12 kD. In Figure 16 and in column 38, lines 53-58, the human protein is taught as having an apparent molecular weight of 27 kD. Since there is a difference of only 7 amino acids between the mouse and human sequences (column 9,

Art Unit: 1646

lines 37-41), it appears that what is identified in Figure 16 is actually a trimeric form of human Mts-1. Thus the '142 patent appears to teach an isolated trimeric form of Mts-1, anticipating the instant claims. That the apparent molecular weight is slightly less than three times that of the mouse protein does not indicate otherwise; migration through polyacrylamide gels is affected by the physical characteristics of the protein and the apparent molecular weights are not exact. Further, 27 kD is "about" 30 kD and is thus within the range specified by the narrowest claim, claim 5.

6. The rejection of claims 12 and 13 under 35 U.S.C. 103(a) as unpatentable over the '142 patent in view of U.S. patent 6167888.

Applicant argues that neither patent teaches multimers. However, since, as set forth above, the '142 patent teaches a human Mts-1 protein that migrates with an apparent molecular weight of three times that of the mouse protein, which has a nearly identical structure, the '142 patent does appear to teach a trimer.

Allowable Subject Matter

7. Claims 7, 28, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. These claims are drawn to multimers of del-75 mutants, human del-75 mutants, and mouse proteins. Multimers of these proteins are not taught in the '142 patent and, since the patent appears to disclose a trimer of the human protein but does not state that it is a trimer, it provides no motivation for one of ordinary skill in the art to generate trimers of related proteins.

Art Unit: 1646

CLAIMS 4-6, 8, 10-13, 26, AND 27 ARE REJECTED. CLAIMS 7, 28, AND 29 ARE OBJECTED TO.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Andres, Ph.D., whose telephone number is (703) 305-0557. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564. The fax phone number for this group is (703) 872-9306 or (703) 872-9307 for after final communications.


Communications via internet mail regarding this application, other than those under U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to yvonne.eyler@uspto.gov.

Art Unit: 1646

All Internet email communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark Office on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Janet Andres, Ph.D.
May 7, 2003


IVONNE EYLER, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600